

ABSTRACT

In an integrated circuit having an internal supply voltage generation circuit which generates an internal supply voltage by descending an external supply voltage, there is provided an internal circuit which operates with a supplied internal supply voltage. The internal supply voltage generation circuit changes an internal supply voltage level to be generated in accordance with an operation speed of the internal circuit. Preferably the semiconductor integrated circuit includes a clock control circuit which generates an internal clock signal the frequency of which is controlled in accordance with the operation speed of the internal circuit. When the internal clock signal is controlled to have a higher frequency, the internal supply voltage is controlled to be higher. Also, when the internal clock signal is controlled to have a lower frequency, the internal supply voltage is controlled to be lower.